

THE TAXONOMY OF SOME MOLLUSCAN SPECIES REPORTED FROM NEW ZEALAND

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Abstract. Type specimens of 16 species living in New Zealand are illustrated and their taxonomy is discussed. Species reported from New Zealand have been assigned in synonymy with some species from elsewhere: *Labio concolor* A. Adams = the European *Monodonta lineata* (da Costa); *Vitularia candida* H. & A. Adams = the South African *Trophon wahlbergi* (Krauss); *Fusus cinnamomeus* Reeve = the South African *Fasciolaria lugubris* Reeve. *Glaphyrina caudata* (Quoy & Gaimard) is an earlier name for the New Zealand fasciolarid *G. vulpicolor* (Sowerby), and *Latirus decoratus* A. Adams, is a tropical Indian Ocean *Peristernia*.

During a recent visit to the British Museum (Natural History), London, the opportunity was taken to examine and photograph some type-specimens of species described from New Zealand. Previous workers who have reported upon type-specimens of molluscan species in the British Museum (Nat. Hist.), are Fleming (1951) and Dell (1963).

Family TROCHIDAE

Subfamily MONODONTINAE Gray, 1857

The authorship of the subfamily name Monodontinae has been credited to "Cossmann 1916" in recent malacological literature, however, Gray (1857) established the subfamily several years earlier and also created as a synonym Canthiridinae Gray 1857. In the same publication Gray (*op. cit.*) established the subfamily Angariinae, which has up till now been credited to "Thiele 1924".

Monodonta lineata (da Costa, 1778)

(Fig. 1)

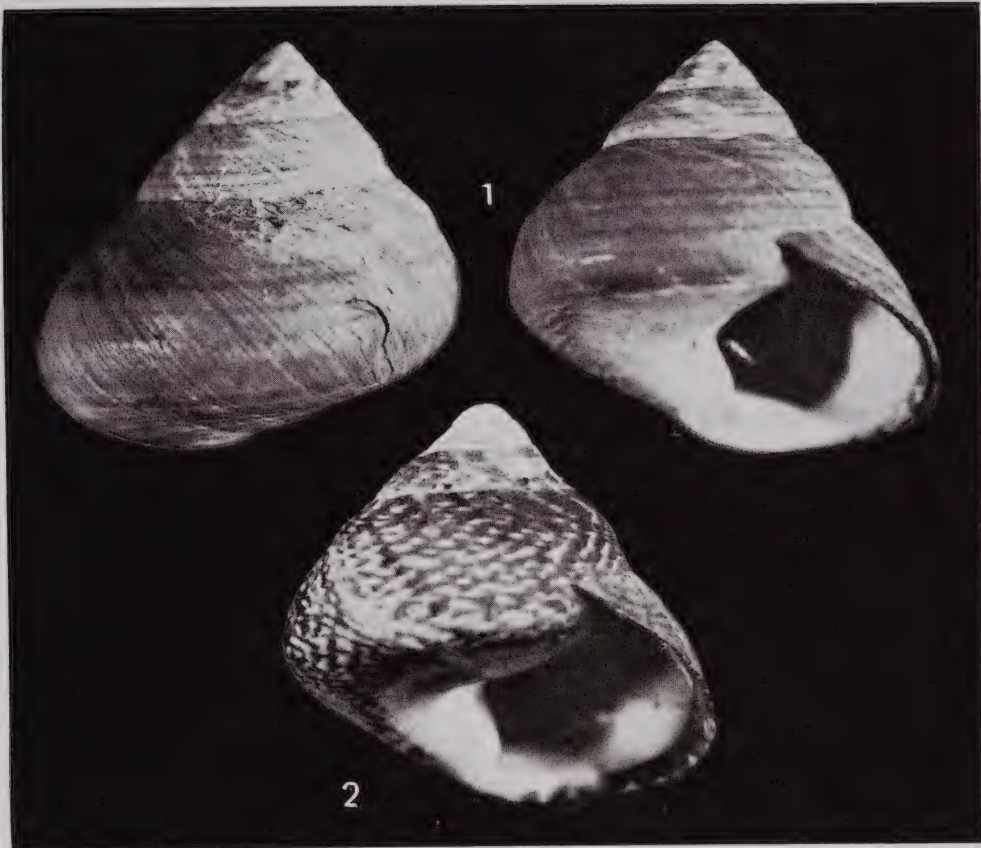
1778. *Turbo lineatus* da Costa, Brit. Conch. p. 100, pl. 6, fig. 7.

1853. *Labio concolor* A. Adams, Proc. Zool. Soc. Lond. Pt. 19: 180; 1915 Iredale, Trans. Proc. N.Z. Inst. 47: 437.

TYPE LOCALITY. Plymouth, England (*lineatus*); New Zealand = error (*concolor*).

Type specimens. Three syntypes of *L. concolor* are in the B.M.(N.H.), No. 196881, dimensions of illustrated syntype height 19.5 mm, width 20.6 mm.

Suter (1913) placed *M. concolor* in synonymy with the New Zealand species *M. aethiops* (Gmelin, 1791), whereas Iredale (1915), who examined the type-specimens of *M. concolor*, pointed out that the New Zealand locality is incorrect and that the species is a synonym of the European *M. lineata* (da Costa, 1778). The tubercular



Figs. 1, 2. *Monodonta lineata* (da Costa). 1. Syntype of *Labio concolor* A. Adams, BMNH No. 196881; 19.5 x 20.6 mm. 2. Specimen of *M. lineata* from Guernsey, Channel Is; 18.0 x 18.4 mm.

swelling on the columella and narrow umbilical fissure are features found in *M. lineata* but not in either of the New Zealand species *M. aethiops* (Gmelin) or *Diloma subrostrata* (Gray). *M. concolor* also lacks the oblique, striate or pitted spiral grooves of *M. aethiops*. Specimens of *M. lineata* from Guernsey, Channel Is, closely resemble *M. concolor* (A. Adams) (Fig. 2).

Genus **Diloma** Philippi, 1847

Subgenus **Fractarmilla** Finlay, [1927]

Diloma (Fractarmilla) subrostrata (Gray in Yate, 1835) (Fig. 3-5)

- 1835. *Monodonta subrostrata* Gray in Yate, Account of N.Z. p. 308; 1843 Gray in Dieffenbach, Travels in N.Z. 2: 238.
- 1853. *Labio corrosa* A. Adams, Proc. Zool. Soc. Lond. Pt. 19: 180.
- 1853. *Chlorostoma undulosum* A. Adams, Proc. Zool. Soc. Lond. Pt. 19: 182; 1946 Powell, Rec. Auckland Inst. Mus. 3 (2): 137.

1854. *Trochus attritus* Rousseau, Voy. Pole Sud 5: 57, pl. 14, figs. 19, 20.
 1873. *Labio hectori* Hutton, Cat. Mar. Moll. N.Z. p. 37.
 1883. *Diloma undulosum* Adams, Hutton, Trans. Proc. N.Z. Inst. 15: 125, pl. 15, fig. c (radula).
 1883. *Diloma corrosa* Adams, Hutton, Trans. Proc. N.Z. Inst. 15: 126, pl. 15, fig. d (radula).
 1883. *Diloma plumbea* Hutton, Trans. Proc. N.Z. Inst. 15: 126, pl. 15, fig. e (radula).
 [1927]. *Zediloma (Fractarmilla) subrostrata* (Gray), Finlay, Trans. Proc. N.Z. Inst. 57: 352.
 [1927]. *Zediloma (Fractarmilla) corrosa* A. Ad., Finlay, Trans. Proc. N.Z. Inst. 57: 352.

TYPE LOCALITY. E. coast of New Zealand (*M. subrostrata*); New Zealand (*L. corrosa*; *C. undulosum*; *T. attritus*); W. coast of the South I. (*L. hectori*); Sumner and the Ocean Beach, Dunedin (*D. plumbea*).

Type specimens. The following type-specimens are in the B.M.(N.H.), London: four syntypes of *M. subrostrata* Gray, No. 1952.10.29.16-19, dimensions of illustrated syntype height 12.7 mm, width 14.3 mm; the syntypes are spirally corded, white with dark brown axial stripes and spots on cords, and the occasional syntype is very dark (Fig. 3).

Three syntypes of *L. corrosa* A. Adams, No. 196880, dimensions of illustrated syntypes, ventral view height 15.3 mm, width 14.4 mm, dorsal view height 12.7 mm, width 13.5 mm (Fig. 4). This species is the type-species of *Fractarmilla* Finlay, [1927].

Three syntypes of *C. undulosum* A. Adams, No. 196883, dimensions of illustrated syntype, height 12.4 mm, width 16.7 mm. In its depressed shape and flamed colour pattern *C. undulosum* resembles some individuals of *D. (F.) subrostrata novazelandiae* (Anton, 1838) (Fig. 5).

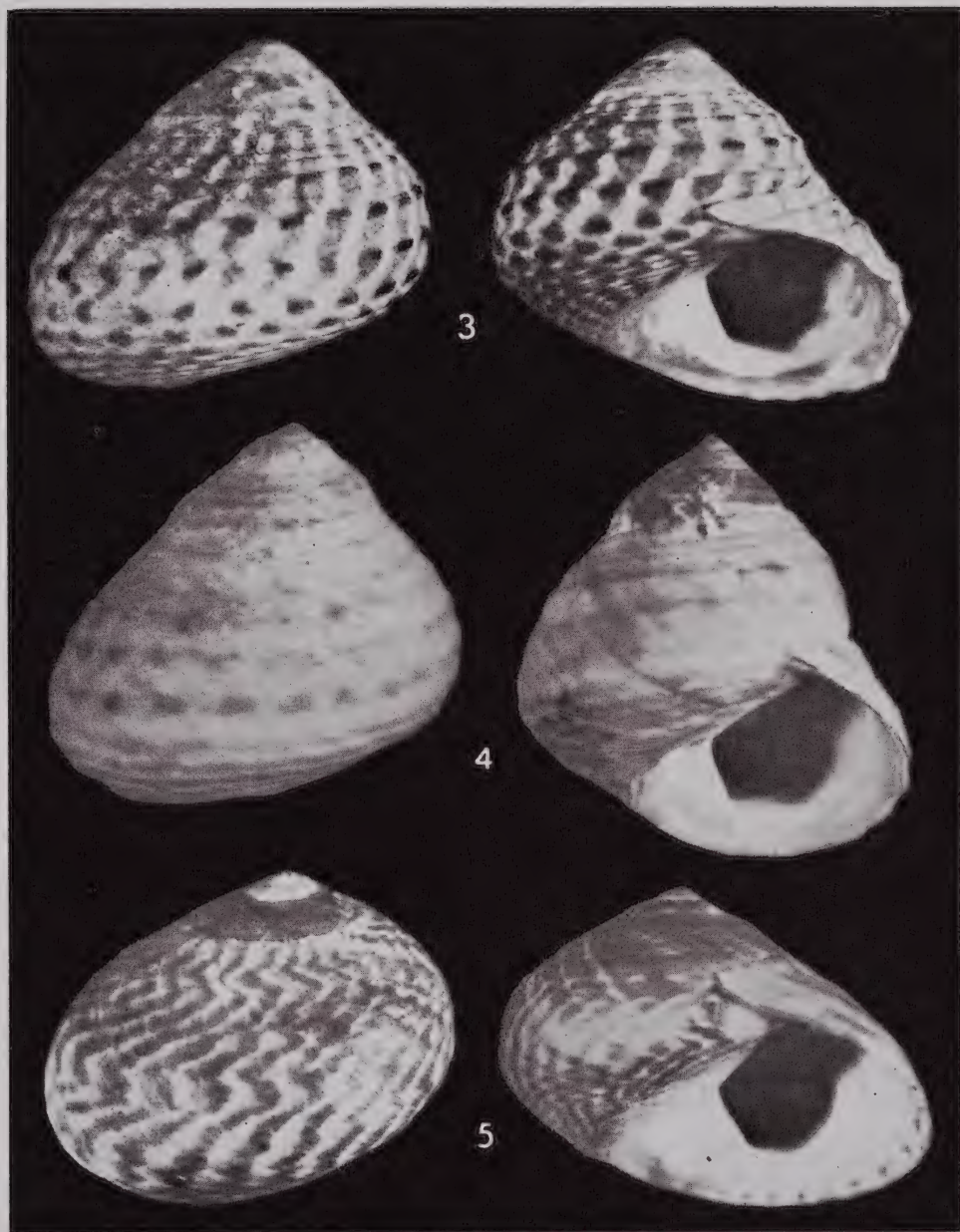
Subgenus **Cavodiloma** Finlay, [1927]

Diloma (Cavodiloma) coracina (Philippi, 1851) (Fig. 6)

1851. *Trochus coracinus* Philippi, Syst. Conch.-Cab. Mart. & Chemnitz, ed. 2, 2 (3): 148, pl. 24, fig. 13.
 1864. *Trochocochlea excavata* Adams & Angas, Proc. Zool. Soc. Lond. p. 37; 1880 Hutton, Man. N.Z. Moll. p. 97.
 1883. *Diloma excavata* Adams, Hutton, Trans. Proc. N.Z. Inst. 15: 126, pl. 15, fig. F (radula).
 1897. *Monodonta coracina* (Trosch), Suter, Proc. Malac. Soc. Lond. 2: 265; textfig. (radula).
 1897. *Monodonta excavata* (Adams & Angas), Suter, Proc. Malac. Soc. Lond. 2: 265; 1913 Suter, Man. N.Z. Moll. p. 119; 1915 Suter, Atlas, pl. 38, fig. 9.
 1927. *Cavodiloma coracina* (Philippi), Finlay, Trans. Proc. N.Z. Inst. 57: 353; 1961 Powell, Shells N.Z., ed. 4: 79, pl. 8, fig. 17.

TYPE LOCALITY. None (*T. coracinus*); New Zealand (*T. excavata*).

Type specimens. Eight syntypes of *D. (C.) excavata* (Adams & Angas) are in the B.M.(N.H.), No. 1870.10.26.151., dimensions of illustrated syntype, height 8.6 mm, width 7.4 mm. *D. (C.) excavata* is the type-species of *Cavodiloma* Finlay, [1927].



Figs. 3-5. *Diloma (Fractarmilla) subrostrata* (Gray in Yate). 3. Syntype BMNH No. 1952. 10.29.16., 12.7 x 14.3 mm. 4. Syntype of *Labio corrosa* A. Adams, BMNH No. 196880: dorsal view 12.7 x 13.5 mm, ventral view 15.3 x 14.4 mm. 5. Syntype of *Chlorostoma undulosum* A. Adams, BMNH No. 196883, 12.4 x 16.7 mm.

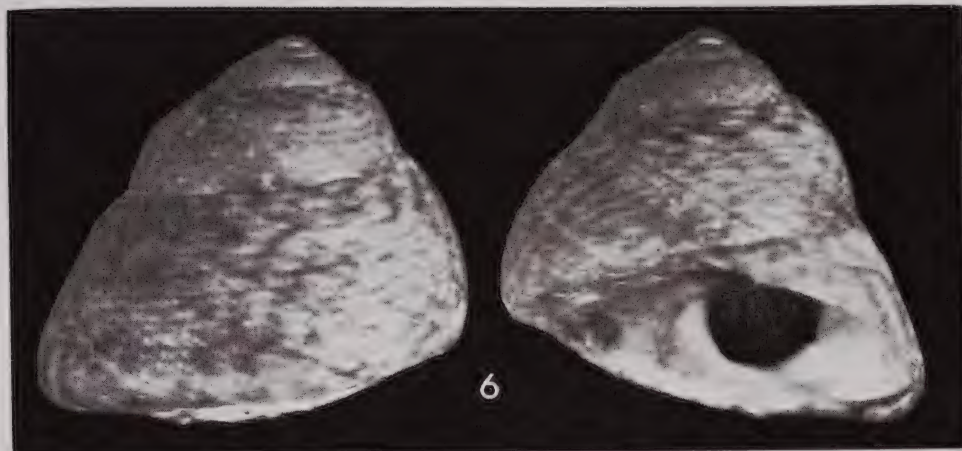


Fig. 6. *Diloma (Cavodiloma) coracina* (Philippi). Syntype of *Trochocochlea excavata* Adams & Angas, BMNH No. 1870.10.26.151.; 8.6 x 7.4 mm.

Genus **Cantharidus** Montfort, 1810

Subgenus **Plumbelenchus** Finlay, [1927]

Cantharidus (Plumbelenchus) capillaceus (Philippi, 1849) (Fig. 7, 8)

1849. *Trochus (Osilinus ?) capillaceus* Philippi, Zeit. f. Malakozool. 5 (7): 102 (ref. to Kuester, Conch. Cab., pl. 40, fig. 7) [published February 1849].
1849. *Trochus pruninus* Gould, Proc. Bost. Soc. Nat. Hist. 3: 90 (published March 1849); 1852 Gould, U.S. Expl. Exp. 12: 180, pl. 12, figs. 205a-b.
1851. *Trochus capillaceus* Philippi, Syst. Conch.-Cab. Mart. & Chemnitz, ed. 2, 2 (3): 275, pl. 40, fig. 7.
1853. *Canthiridis zealandicus* A. Adams, Proc. Zool. Soc. Lond. Pt. 19: 169.
1902. *Cantharidus pruninus minor* E. A. Smith, Rept. Coll. Nat. Hist. Voy. Southern Cross, p. 207.
1955. *Cantharidus (Plumbelenchus) capillaceus* (Philippi), Powell, Cape Exp. Ser. Bull. No. 15: 53; 1964 Dell, Rec. Dominion Mus. 4 (20): 279, fig. 7.

TYPE LOCALITY. New Holland = error (*C. capillaceus*); Auckland I (*C. pruninus*); New Zealand (*C. zealandicus*); Auckland Is, 10 fathoms (18 m) [*C. minor*].

Type specimens. Three syntypes of *C. (P.) zealandicus* (A. Adams) are in the B.M.(N.H.), No. 196849, size of illustrated syntype height 27.0 mm, width 19.0 mm. The species is conspecific with *C. (P.) capillaceus* (Philippi) and not *C. opalus* (Martyn, 1784) as suggested by Suter (1913).

The date of description of *C. (P.) capillaceus* is usually given as 1848, but the correct date is *post* 30th January 1849. On the last page of Philippi's article (1849) are two notices to subscribers, one of which is dated 30th January 1849.

Dell (1964) discussed the *Cantharidus (Plumbelenchus)* species from the Southern Islands of New Zealand and pointed out that *C. (P.) capillaceus* is relatively constant

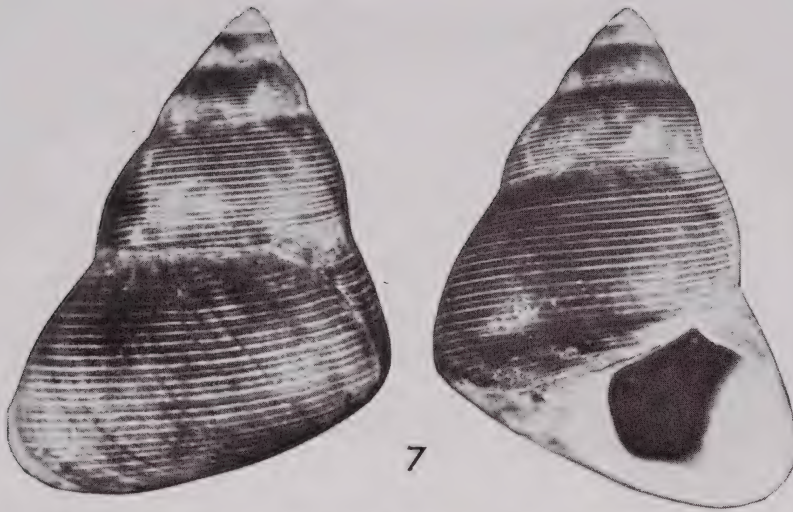


Fig. 7. *Cantharidus (Plumbelenchus) capillaceus* (Philippi). Syntype of *Cantharidus zealandicus* A. Adams, BMNH No. 196849; 27.0 x 19.0 mm.

in outline, that the width-index ratio (width expressed as a percentage of length) covers only a mere 5% (72%-77%), and concluded that no overlap in width-index ratio occurs between *C. (P.) capillaceus* from the Auckland and Campbell Is and the form from the Antipodes Is (width-index 79%-109%). The width-index of the Auckland-Campbell Is *capillaceus* was based on a very small sample of 8 specimens, which is far too small a sample to reflect the actual width-index range. We have increased the sample-size 22 times and this expanded the width-index of *capillaceus* to a range of 21% (67%-88%), with an overlap of 9% in the width-index range (79%-88%) between the Auckland-Campbell Is *capillaceus* and the population from the Antipodes Is (Fig. 8). A larger sample-size of the Antipodes Is *capillaceus* would most probably have expanded the 9% overlap in width-index.

The following mean width-index ratios show that the Campbell I population of *capillaceus* is slightly broader than the Auckland I one.

Auckland Is: Mean width-index of 106 specimens	.....	.....	.....	.....	75.6%
Campbell Is: Mean width-index of 68 specimens	.....	.....	.....	.....	79.4%
Antipodes Is: Mean width-index of 24 specimens	.....	.....	.....	.....	93.3%

Juvenile and immature specimens of Neogastropod species are usually considerably broader than adults and the same applies to the trochid *capillaceus*. We have divided our sample into 3 groups according to size, and expected to find the largest accumulation of juveniles in the 9.0 - 14.9 mm group, which indeed proved to be the case. The mean width-index of the 3 size groups is as follows:

9.0 - 14.9 mm group; mean width-index of 57 specimens	.....	.....	80.1%
15.0 - 19.9 mm group; mean width-index of 68 specimens	.....	.....	76.6%
20.0 - 29.0 mm group; mean width-index of 35 specimens	.....	.....	74.4%

The above analysis shows that the largest specimens of *capillaceus* are the most slender and the smallest are the broadest individuals in a given population.

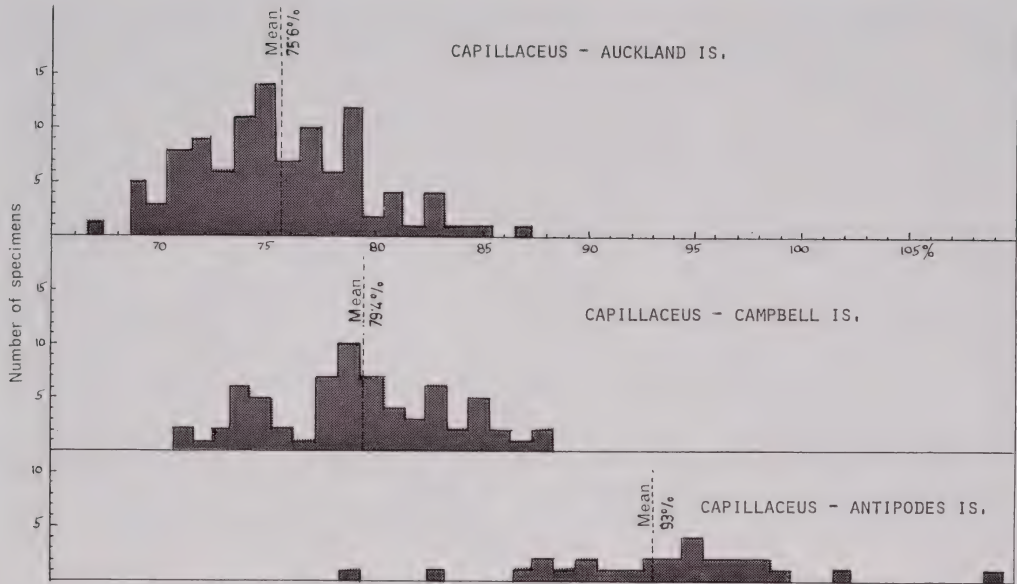


Fig. 8. Width-index—frequency histogram of *Cantharidus (Plumbelenchus) capillaceus* (Philippi) from Auckland Is, Campbell Is and Antipodes Is.

Subfamily CALLIOSTOMATINAE Thiele, 1924

Genus **Calliostoma** Swainson, 1840

Subgenus **Maurea** Oliver, 1926

Calliostoma (Maurea) spectabilis (A. Adams, 1855) (Fig. 9)

1855. *Zizyphinus spectabilis* A. Adams, Proc. Zool. Soc. Lond. Pt. 22: 37, pl. 27, fig. 7.
1897. *Calliostoma spectabile* (A. Adams), Suter, Proc. Malac. Soc. Lond. 2: 280; 1913 Suter, Man. N.Z. Moll. p. 147, pl. 40, fig. 5.
1926. *Calliostoma (Mauriella) spectabile* (A. Adams), Oliver, Proc. Malac. Soc. Lond. 7: 110.
- [1927]. *Venustus (Mucrinops) spectabilis* A. Ad., Finlay, Trans. Proc. N.Z. Inst. 57: 360, pl. 18, fig. 26.
1950. *Venustus spectabile* (A. Adams), Dell, Rec. Dominion Mus., Zool. 1 (3-6): 45, figs. 16-18; 1955 Powell, Cape Exp. Ser. Bull. No. 15: 55.

TYPE LOCALITY. New Zealand.

Type specimen. The holotype is in the B.M.(N.H.), No. 1968150, height 50.5 mm, width 46.8 mm. The species is the type-species of *Mucrinops* Finlay [1927].

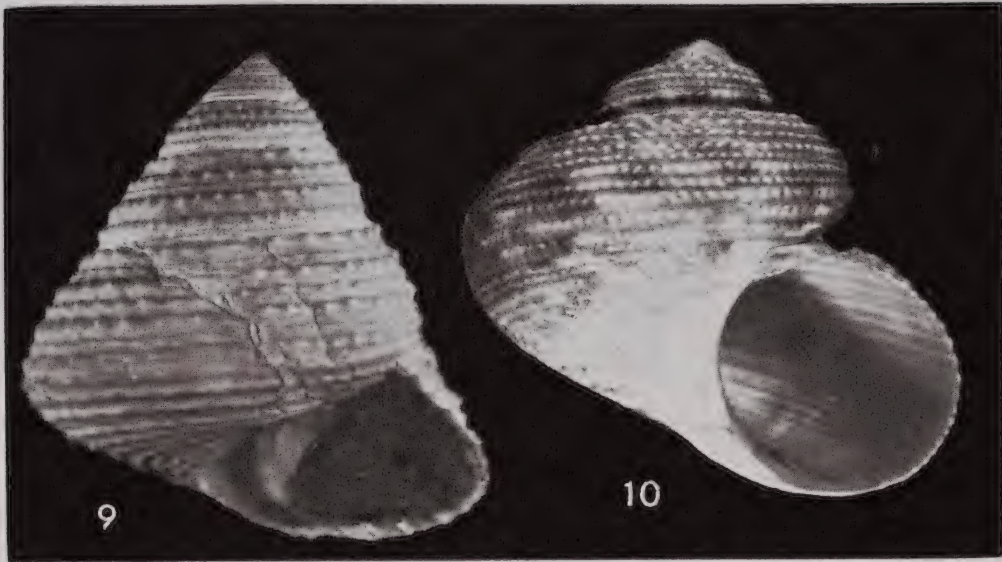


Fig. 9, 10. 9. *Calliostoma (Maurea) spectabilis* (A. Adams). Holotype BMNH No. 1968150; 50.5 x 46.8 mm. 10. *Turbo (Modelia) granosus* (Martyn). Syntype of *T. rubicundus* Reeve, BMNH No. 196845; 47.0 x 49.5 mm.

Family TURBINIDAE

Genus **Turbo** Linnaeus, 1758

Subgenus **Modelia** Gray, 1850

Turbo (Modelia) granosus (Martyn, 1784) (Fig. 10)

1781. "*Cochlea lunaris rubicunda*" Chemnitz, Syst. Conch. Cab. 5: 207, pl. 181, figs. 1803-04 (non binom.).
1784. *Trochus granosus* Martyn, Univ. Conch. 1: pl. 37 (nom. conserv.).
1789. *Cidaris rugosus* Roeding, Mus. Boltzen, p. 84 (ref. to Chemnitz, *op. cit.*, pl. 181 fig. 1803 (in error figs. 1783, 1783) [non *Turbo rugosus* Linnaeus, 1767]).
1802. *Turbo granosus* Holten, Enum. Syst. Conchyl. Chemnitzii, p. 69 (ref. to Chemnitz, *op. cit.*, figs. 1803-04 (in error 1804, 1804); 1913 Suter, Man. N.Z. Moll., p. 163; 1915 Suter, Atlas, pl. 40, fig. 8).
1842. *Turbo rubicundus* Reeve, Conch. Syst. 2: 168, pl. 220, figs. 11, 12.
1961. *Modelia granosa* (Martyn), Powell, Shells N.Z., ed. 4: 82, pl. 13, fig. 5.

TYPE LOCALITY. Coast of New Zealand (*T. granosus*; *T. rubicundus*).

Type specimens. The three syntypes of *Turbo rubicundus* Reeve, are in the B.M.(N.H.), No. 196845, dimensions of illustrated syntype, height 47.0 mm, width 49.5 mm.

Family NATICIDAE

Genus **Friginatica** Hedley, 1916

Friginatica amphiala (Watson, 1881) (Fig. 11)

1881. *Natica amphiala* Watson, J. Linn. Soc. Lond., Zool. 15: 260; 1886 Watson, Rept. Sci. Res. Voy. H.M.S. Challenger 15: 437, pl. 27, fig. 6.
1909. *Polinices (Lunatia) amphialus* (Watson), Suter, Subant. Islands N.Z. 1: 22.

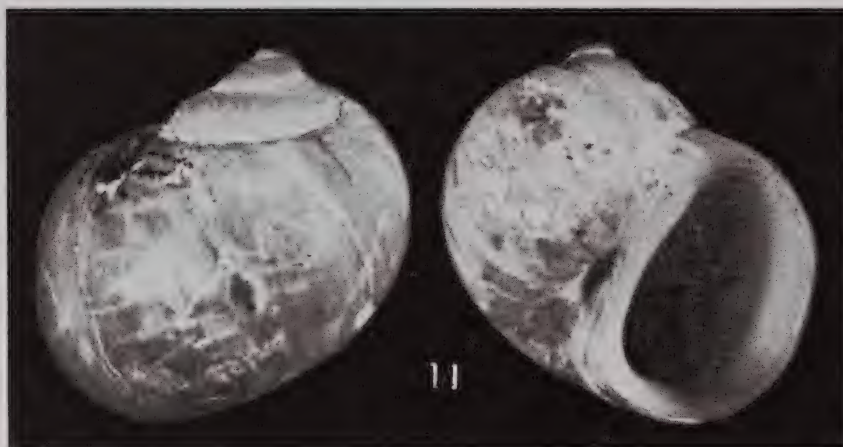


Fig. 11. *Friginatica amphiala* (Watson). Holotype BMNH, 7.0 x 6.3 mm.

1953. *Friginatica conjuncta* Dell, Rec. Dominion Mus. 2 (1): 43, fig. 8; 1956 Dell, Dominion Mus. Bull. No. 18: 73; 1961 Powell, Shells N.Z. ed. 4: 93.
 1956. *Uberella amphiala* (Watson), Dell, Dominion Mus. Bull. No. 18: 76.
 1961. *Uberella amphialis* (Watson), Powell, Shells N.Z., ed. 4: 93.
 1963. *Friginatica amphiala* (Watson), Dell, Trans. R. Soc. N.Z. Zool. 3 (17): 175.

TYPE LOCALITY. N.E. from New Zealand, 700 fathoms (1280 m) [*F. amphiala*]; Chatham Rise, New Zealand (*F. conjuncta*).

Type specimens. The holotype and 1 paratype are in the B.M.(N.H.), dimensions of holotype height 7.0 mm, width 6.3 mm; the shell is white under a brownish periostracum.

Family CYMATIIDAE

Genus *Cymatona* Iredale, 1929

Cymatona kampyla (Watson, 1883) (Fig. 12)

1883. *Nassaria kampyla* Watson, J. Linn. Soc. Lond., Zool. 16: 594; 1948 Tomlin, BANZARE Repts., ser. B, 5: 228, pl. 2, fig. 5.
 1886. *Nassaria campyla* (sic) Watson, Rept. Sci. Res. Voy. H.M.S. Challenger 15: 405, pl. 14, fig. 12.
 1900. *Lampusia nodocostata* Tate & May, Trans. R. Soc. Sth. Aust. 24 (2): 90; 1901 Tate & May, Proc. Linn. Soc. N.S.W. 26 (3): 355, pl. 23, fig. 2.
 1929. *Cymatona kampyla* (Watson), Iredale, Rec. Austral. Mus. 17 (4): 177.
 1955. *Cymatona tomlini* Powell, Cape Exp. Ser. Bull. No. 15: 97 (*nom. subst. pro Nassaria kampyla* Tomlin, 1948).
 1956. *Cymatoma kampyla* (Watson), Dell, Dominion Mus. Bull. No. 18: 83, pl. 13, figs. 126, 132.

TYPE LOCALITY. Off Sydney, Australia, 410 fathoms (750 m) [*C. kampyla*]; East coast of Tasmania (*L. nodocostata*); off Lusitania Bay, Macquarie Is, 69 m (*C. tomlini*).



Fig 12. *Cymatona kampyla* (Watson). Holotype BMNH, 39.5 x 20.8 mm.

Type specimens. The holotype and 1 paratype are in the B.M.(N.H.), dimension of holotype length 39.5 mm, width 20.8 mm, height of aperture 22.7 mm.

C. kampyla has originally been described from off Sydney and has later been reported from Tasmania and from several New Zealand localities (Dell, 1956). Tomlin's (1948) record of *C. kampyla* from Macquarie I has been re-named *C. tomlini* Powell, 1955, but after examining the holotype of *C. tomlini*, I agree with Tomlin's suggestion that the Macquarie I record is *C. kampyla*. The short siphonal canal in the holotype of *C. tomlini* is not the result of natural growth but is clearly visible as having been broken off.

Family MURICIDAE

Genus *Trophon* Montfort, 1810

Trophon wahlbergi (Krauss, 1848)

(Fig. 13)

1848. *Murex wahlbergi* Krauss, Suedafrik. Mollusk. p. 111, pl. 6, fig. 13; 1973 Kensley, Seashells Sth. Africa p. 140, fig. 477.
1864. *Vitularia candida* H. & A. Adams, Proc. Zool. Soc. Lond. for 1863: 430.
1880. *Trophon wahlbergi* Krauss, Tryon, Man Conch. 2: 147, pl. 31, fig. 315; 1971 Vokes, Bull. Americ. Paleont. 61 (268): 116.
1880. *Trophon walbergi* (sic) Krauss, Sowerby, Tes. Conchyl. 4: 63, pl. 405*, fig. 54.
1959. "*Murex*" *wahlbergi* Krss., Barnard, Ann. Sth. Afric. Mus. 45: 200, fig. 42c (protoconch).

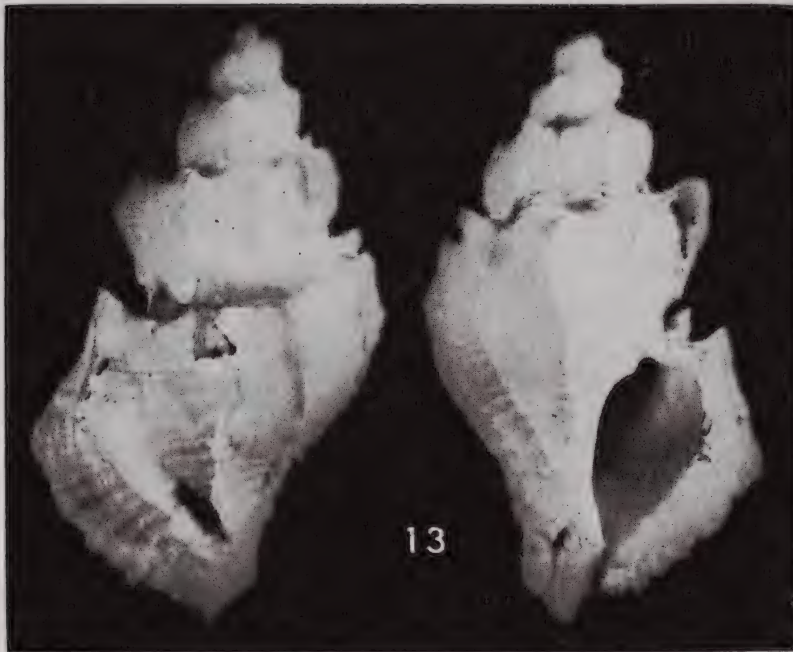


Fig. 13. *Trophon wahlbergi* (Krauss). Syntype of *Vitularia candida* H. & A. Adams, BMNH, 37.6 x 18.0 mm.

TYPE LOCALITY. Natal (*M. wahlbergi*); New Zealand = error (*V. candida*).

Type specimens. Three syntypes of *Vitularia candida* are in the B.M.(N.H.), dimensions of illustrated syntype length 37.6 mm, width 18.0 mm; faded white with traces of brown, outer lip with 8 plications.

Suter (1913) erroneously placed *Vitularia candida* in the synonymy of the New Zealand *Xymene ambiguus* (Philippi, 1844), while Finlay (1927) stated that the types, according to Iredale, prove to be of American and not New Zealand origin. The latter conclusion appears also erroneous as the syntypes of *V. candida* are faded and somewhat worn individuals of the South African *Trophon wahlbergi* (Krauss, 1848). The generic allocation of *wahlbergi* is still in doubt.

Genus *Xymene* Iredale, 1915

Xymene ambiguus (Philippi, 1844)

(Fig. 14)

1844. *Fusus ambiguus* Philippi, Abb. Besch. Conchyl. 1: 107, pl. 1, fig. 2.
 1847. *Fusus cretaceus* Reeve, Conch. Icon. 4: pl. 13, figs. 48a, b.
 1880. *Trophon cretaceus* Reeve, Sowerby, Thes. Conchyl. 4: 63, pl. 404, figs. 9, 10.
 1883. *Trophon ambiguus* Philippi, Hutton, Trans. Proc. N.Z. Inst. 16: 219; 1913 Suter, Man. N.Z. Moll p. 405, pl. 45, fig. 13.
 [1927]. *Zeatrophon ambiguus* (Philippi), Finlay, Trans. Proc. N.Z. Inst. 57: 424.
 1972. *Xymene ambiguus* (Philippi), Ponder, J. R. Soc. N.Z. 2 (4): 484, figs. 5/1-5.

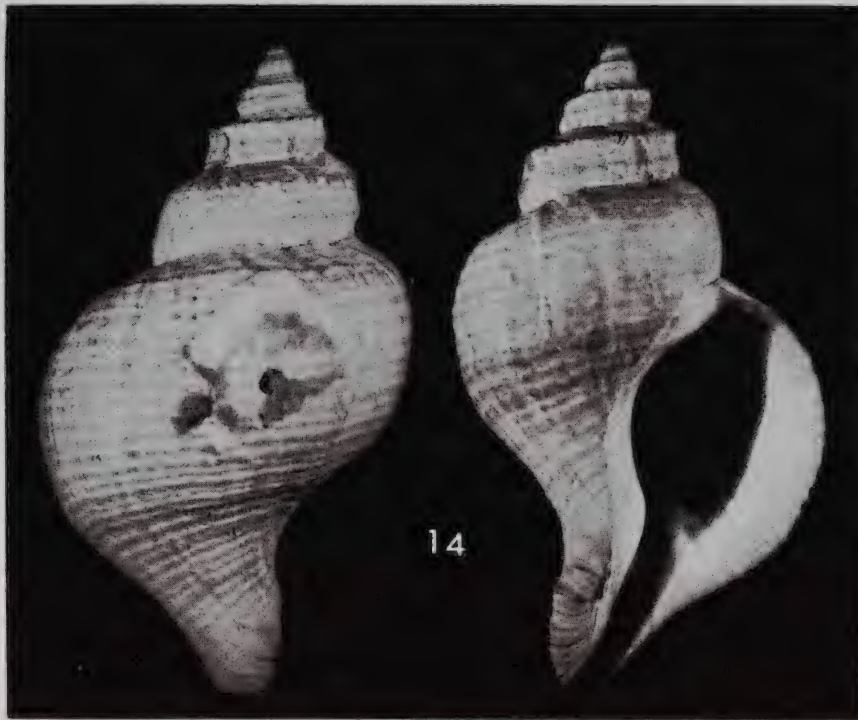


Fig. 14. *Xymene ambiguus* (Philippi). Syntype of *Fusus cretaceus* Reeve, BMNH, 51.9 x 29.0 mm.

TYPE LOCALITY. None (*F. ambiguus* and *F. cretaceus*).

Type specimen. One syntype of *Fusus cretaceus* Reeve (Cuming spec.) is in the B.M.(N.H.), length 51.9 mm, width 29.0 mm. The second syntype appears to have been sold in 1880 at auction of the Taylor collection.

Fusus ambiguus Philippi, is the type-species of *Zeatrophon* Finlay, [1927], a synonym of *Xymene* Iredale, 1915.

Genus **Paratrophon** Finlay, [1927]

Paratrophon quoyi (Reeve, 1846)

(Fig. 15)

1853. *Purpura rugosa* Quoy & Gaimard, Voy. L'Astrolabe, 2: 569, pl. 38, figs. 19-21 (non Lamarck, 1822).

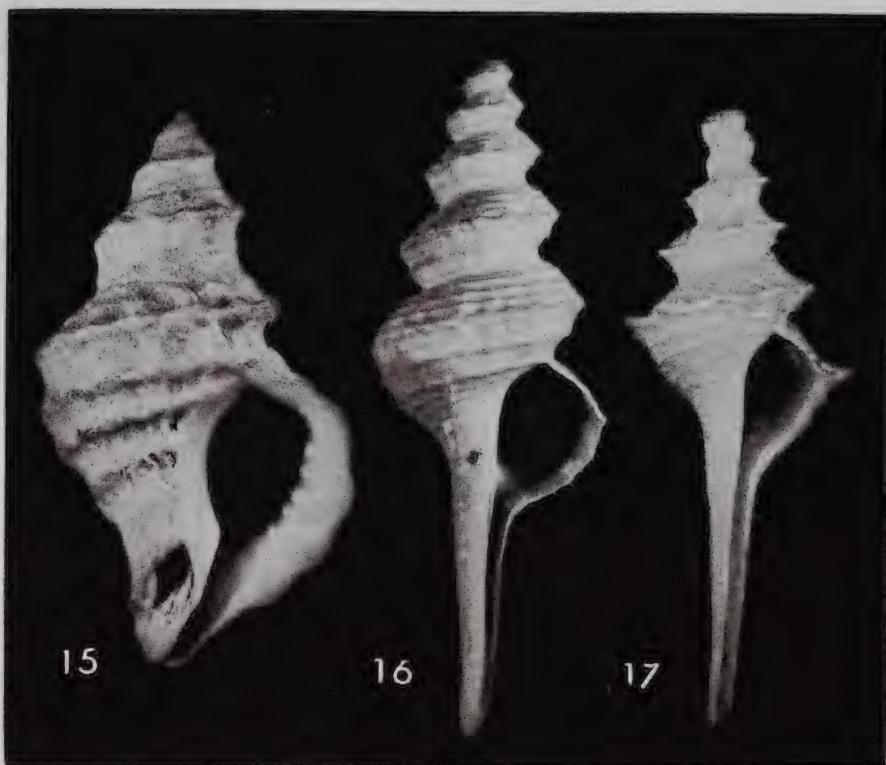
1846. *Purpura quoyi* Reeve, Conch. Icon. 3Lpl. 13, fig. 71.

1971. *Paratrophon quoyi quoyi* (Reeve), Ponder, J. Conchyl. 109 (3): 112, figs. 8-11, 13.

— *Trophon stangeri* auct. ? non *Fusus stangeri* Gray in Dieffenbach, 1843).

TYPE LOCALITY. Bay of Islands, New Zealand (*P. rugosa*); New Zealand (*P. quoyi*).

Type specimens. Two syntypes of *Purpura quoyi* Reeve, are in the B.M.(N.H.),



Figs. 15-17. 15. *Paratrophon quoyi* (Reeve). Syntype BMNH No. 1842.11.6.143., 27.5 x 15.2 mm. 16, 17. *Coluzea spiralis* (A. Adams). 16. Holotype BMNH No. 1951.10.16.1., 60.0 x 21.4 mm. 17. Holotype of *Columbarium suteri* E. A. Smith, BMNH No. 1915.4.18. 255.; 17.0 x 6.0 mm.

No. 1842.11.6.143-144., dimensions of illustrated syntype length 27.5 mm, width 15.2 mm.

Fusus stangeri Gray in Dieffenbach remains, in the absence of a type-specimen, a *nomen dubium*.

Family COLUMBARIIDAE

Genus *Coluzea* Finlay, [1927]

Coluzea spiralis (A. Adams, 1856)

(Fig. 16, 17)

1856. *Fusus spiralis* A. Adams, Proc. Zool. Soc. Lond. Pt. 23: 221.
 1873. *Fusus pensum* Hutton, Cat. Mar. Moll. N.Z. p. 8
 1913. *Fusinus spiralis* A. Adams, Suter, Man. N.Z. Moll. p. 357, pl. 41, fig. 4.
 1915. *Columbarium suteri* E. A. Smith, Brit. Ant. Terra Nova Exp. 2: 87, pl. 1, fig. 30, (juvenile).
 [1927]. *Coluzea spiralis* A. Ad., Finlay, Trans. Proc. N.Z. Inst. 57: 407; 1927 Powell, Trans. Proc. N.Z. Inst. 58: 298, pl. 34, fig. 3 (protoconch); 1930 Finlay, Trans. Proc. N.Z. Inst. 61: 268.
 1956. *Coluzea spiralis* (A. Adams), Dell, Rec. Dominion Mus. 3 (1): 47.

TYPE LOCALITY. New Zealand (*F. spiralis*); Kapiti, Cook Strait (*F. pensum*); near Nth. Cape, 11-20 fathoms (20-37 m) [*C. suteri*].

Type specimens. The holotype of *Fusus spiralis* A. Adams, is in the B.M.(N.H.), No. 1951.10.16.1., length 60.0 mm, width 21.4 mm. The holotype of *Columbarium suteri* E. A. Smith (= juvenile of *C. spiralis*), is in the same Institution No. 1915.4.18.255., length 17.0 mm, width 6.0 mm.

Family BUCCINIDAE

Genus **Buccinulum** Deshayes, 1830

Buccinulum vittatum (Quoy & Gaimard, 1833) (Fig. 18)

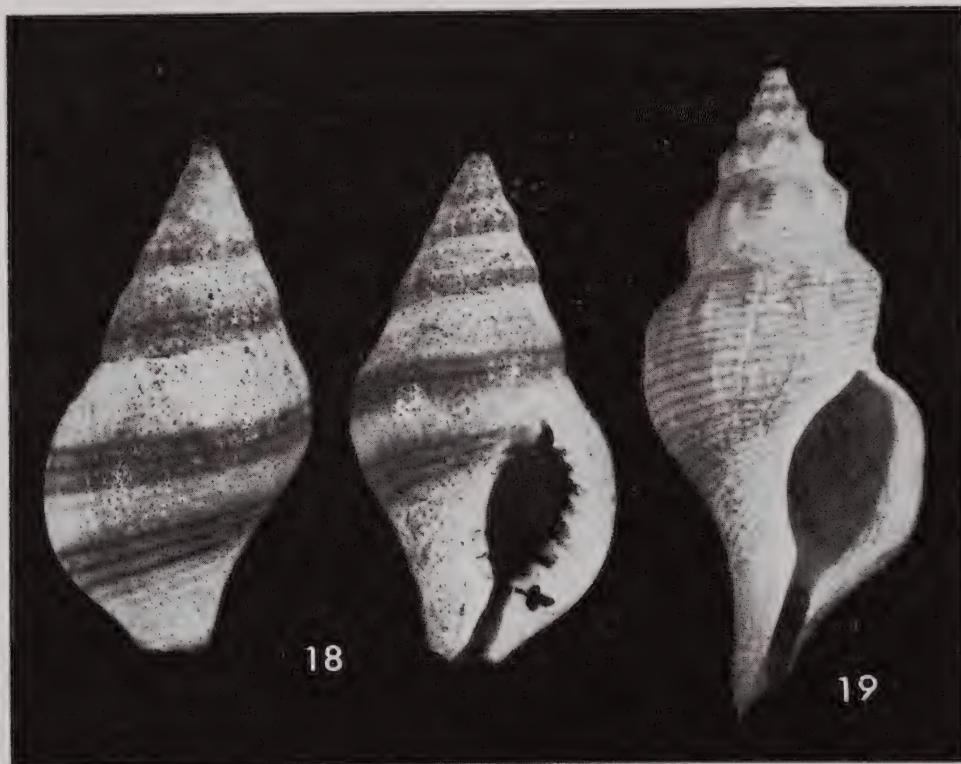
1833. *Fusus vittatus* Quoy & Gaimard, Voy. L'Astrolabe 2: 504, pl. 34, figs. 18, 19.

1846. *Buccinum trilineatum* Reeve, Conch. Icon. 3: pl. 12, fig. 98.

1971. *Buccinulum vittatum vittatum* (Quoy & Gaimard), Ponder, J. R. Soc. N.Z. 1 (3/4): 248, figs. 6/1-15; 7/1-16.

TYPE LOCALITY. Bay of Islands, New Zealand (*F. vittatus*); None (*B. trilineatum*).

Type specimens. Three worn syntypes of *B. trilineatum* Reeve, are in the B.M.(N.H.), No. 1844.5.30.26., dimensions of illustrated syntype length 17.3 mm, width 8.8 mm. *B. trilineatum* Reeve, is a synonymy of *Buccinulum vittatum* (Quoy & Gaimard).



Figs. 18, 19. 18. *Buccinulum vittatum* (Quoy & Gaimard). Syntype of *Buccinum trilineatum* Reeve, BMNH No. 1844.5.30.26.; 17.3 x 8.8 mm. 19. *Aeneator valedictus* (Watson). Holotype BMNH No. 1887.2.9.696., 81.3 x 21.4 mm.

Genus **Aeneator** Finlay, [1927]**Aeneator valedictus** (Watson, 1886) (Fig. 19)

1886. *Fusus valedictus* Watson, Rept. Sci. Res. Voy. H.M.S. Challenger, 15: 201, pl. 17, fig. 7.
 1907. *Siphonalia valedicta* (Watson), Iredale, Trans. Proc. N.Z. Inst. 40: 383; 1913 Suter, Man. N.Z. Moll. p. 372, pl. 18, fig. 9; [1927] Finlay, Trans. Proc. N.Z. Inst. 57: 414.
 1956. *Aeneator valedictus* (Watson), Dell, Dominion Mus. Bull. No. 18: 100, pl. 14, fig. 136.

TYPE LOCALITY. 200 mi. (371 km) W. of Cape Farewell, New Zealand, 275 fathoms (503 m).

Type specimen. The holotype is in the B.M.(N.H.), No. 1887.2.9.696., length 81.3 mm, width 21.4 mm; penultimate whorl with 17 spiral threads, periostracum yellowish-brown.

Family FASCIOLARIIDAE

Genus **Glaphyrina** Finlay, [1927]**Glaphyrina caudata** (Quoy & Gaimard, 1833) (Fig. 20)

1833. *Fusus caudatus* Quoy & Gaimard, Voy. L'Astrolabe 2: 503; pl. 34, figs. 20, 21.
 1880. *Neptunea caudata* Quoy & Gaimard, Hutton, Man. N.Z. Moll. p. 50.
 1880. *Fusus vulpicolor* Sowerby, Thes. Conchyl. 4: 78, pl. 411, fig. 73.
 1913. *Siphonalia caudata* Quoy & Gaimard, Suter, Man. N.Z. Moll. p. 371; 1915 Suter, Atlas, pl. 44, fig. 18.
 1927. *Glaphyrina vulpicolor* Sowerby, Finlay, Trans. Proc. N.Z. Inst. 57: 414, pl. 21, fig. 80; 1961 Powell, Shells N.Z. ed. 4: 99, pl. 12, fig. 18.

TYPE LOCALITY. New Zealand (*F. caudatus*); New Zealand (in text) and Falkland Is = error (in plate expl.) [*F. vulpicolor*].

Type specimen. The holotype of *Fusus vulpicolor* Sowerby, is in the B.M.(N.H.), No. 1907.10.28.211., length 26.0 mm, width 11.6 mm. The locality "New Zealand" is appended in Sowerby's hand-writing.

Finlay's (1927) reason for rejecting Quoy & Gaimard's species *Fusus caudatus* is somewhat obscure, especially his reference to Suter's figure *caudatus* representing *Fusus vulpicolor*. Quoy & Gaimard's (1832-33) locality for *F. caudatus* has been given correctly as New Zealand, the description is good and the figures are excellent, leaving no doubt that *F. caudatus* and *F. vulpicolor* are conspecific and that the species could not be confused with any other similar New Zealand species. The earliest name *Glaphyrina caudata* (Quoy & Gaimard, 1833) should be restored for this New Zealand fasciolarid species.

Fusus vulpicolor Sowerby, is the type-species of *Glaphyrina* Finlay [1927].

Genus **Fasciolaria** Lamarck, 1799**Fasciolaria lugubris** Reeve, 1847 (Fig. 21)

1847. *Fasciolaria lugubris* Reeve, Conch. Icon. 4: pl. 1, figs. 2a, b (October, 1847); 1959 Barnard, Ann. Sth. Afric. Mus. 45: 76, figs. 18b, c (protoconch); figs. 19a, b (radula); 1973 Kensley, Sea-shells Sth. Africa p. 164, fig. 609.



Figs. 20, 21. 20. *Glaphyrina caudata* (Quoy & Gaimard). Holotype of *Fusus vulpicolor* Sowerby, BMNH No. 1907.10.28.211.; 26.0 x 11.6 mm. 21. *Fasciolaria lugubris* Reeve. Holotype of *Fusus cinnamomeus* Reeve, BMNH No. 1879.2.26.104.; 55.3 x 26.0 mm.

1847. *Fusus cinnamomeus* Reeve, Conch. Icon. 4: pl. 5, fig. 16 (November 1847).
 1848. *Fasciolaria badia* Krauss, Suedafrik. Mollusk. p. 110, pl. 6, fig. 12.
 1848. *Fusus mandarinus* Duclos, Krauss, Suedafrik. Mollusk. p. 110 (*non* Duclos, 1832).
 1880. *Fusus cinnamomeus* (*sic*) Reeve, Sowerby, Thes. Conchyl. 4: 83. pl. 411, fig. 65.
 1932. *Fasciolaria agulhasensis* Tomlin, Ann. Sth. Afric. Mus. 30 (2): 11, fig. 1.

TYPE LOCALITY. Cape of Good Hope (*F. lugubris*); None (*F. cinnamomeus*); Natal (*F. badia*); Agulhas Bank, 28 fathoms (51 m) [*F. agulhasensis*].

Type specimen: The holotype of *Fusus cinnamomeus* Reeve, is in the B.M.(N.H.), No. 1879.2.26.104., length 55.3 mm, width 26.0 mm.

Originally described from unknown locality, Sowerby (1880) localized the species from the Cape of Good Hope. Suter (1913) synonymized *Fusus cinnamomeus* with the New Zealand buccinid species "*Fusus mandarinus* Duclos, 1832" (= *Penion sulcatus* Lamarck, 1816), while Krauss (1848) erroneously reported the Australian *Penion mandarinus* (Duclos, 1832) from South Africa. The South African fasciolarid *Fasciolaria lugubris* Reeve, and the New Zealand buccinid *Penion sulcatus* (Lamarck), are sometimes closely similar in appearance. We agree with Sowerby (1880) that the type of *Fusus cinnamomeus* originated from South Africa, and consider the species a synonym of the South African *Fasciolaria lugubris* Reeve, 1847.



Fig. 22. *Peristernia decorata* (A. Adams). Syntype BMNH No. 1968454. 18.2 x 7.8 mm.

Genus *Peristernia* Moerch, 1852

Peristernia decorata (A. Adams, 1855)

(Fig. 22)

1855. *Latirus decoratus* A. Adams. Proc. Zool. Soc. Lond. Pt. 22: 316; 1879 E. A. Smith, Proc. Zool. Soc. Lond. for 1878: 812, pl. 50, fig. 11.

TYPE LOCALITY. New Zealand = error.

Type specimens. Two syntypes are in the B.M.(N.H.), No. 1968454, dimensions of illustrated syntype length 18.2 mm, width 7.8 mm; there are 9 broad axial ribs on the penultimate and the same number on the body whorl, spiral cords override axial ribs, sutures with 2 prominently granulose spiral cords, columella with 3 basal denticles, aperture lirate, pinkish-white in colour and brown between axial ribs.

The species does not live in New Zealand and has been subsequently reported by E. A. Smith (1879) from the Andaman Islands.

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